

BioQuip Products, Inc.
2321 E. Gladwick St.
Rancho Dominguez, CA 90220
(310) 667-8800

2809 Fan Replacement Procedure for 2809A, 2809C and 2809D

This procedure describes the steps required to replace a broken or damaged fan.

In changing out the fan, the motor/fan assembly must first be removed from the aspirator base. This step is done to protect the motor and motor wires. Before removing wires mark motor housing with a felt tip pen, where the positive (red) motor lead is attached. This will help when reconnecting the wires. The positive pole on the motor can be identified by a small circle on the plastic motor end cap.

1. Isolate drive unit from aspirator base:

2809A

Unscrew the lid that contains the motor and switch. Use a fine point felt marker to index the tube holder to the white lid. This will help during reassembly. Remove the four screws that retain vial holder.



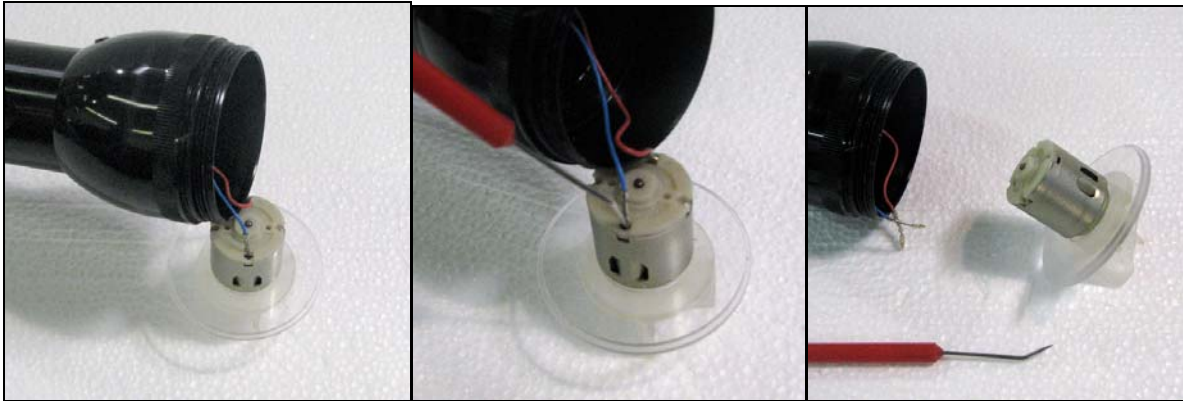
2809C,D

Unscrew bezel ring. After the ring is unscrewed, the tube holder and retaining ring will separate.



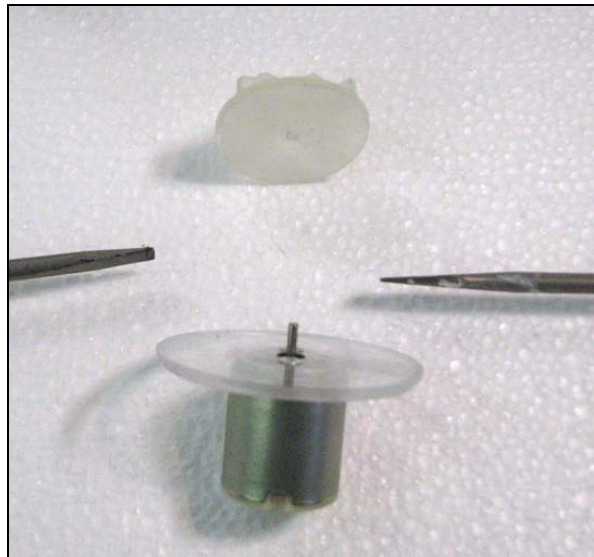
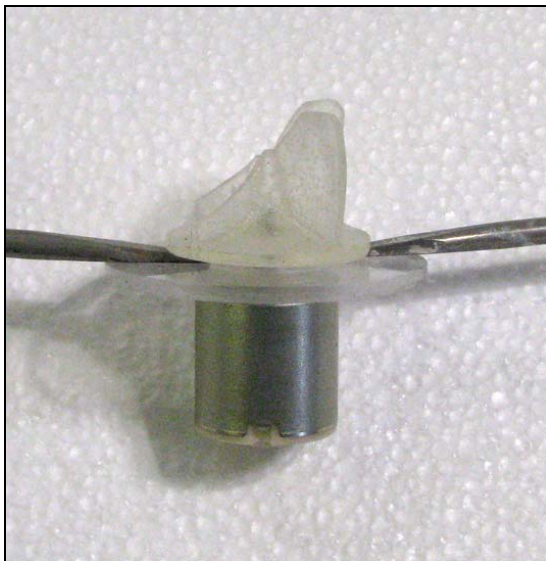
2. Remove motor lead wires:

Insert a fine point instrument such as a pin, probe or forceps point between each electrical lead wire and the release tab to release each wire lead. The release tab is located next to the lead wire and the outside edge of the motor housing. Release the tab and pull each wire out. Pull gently on the wire as the tab is unlocked. It is a good idea to mark at least one wire or terminal before disassembly. If the wires are reversed, the motor will still run, but in the wrong direction. At this point, the motor and base should be isolated from the drive assembly.



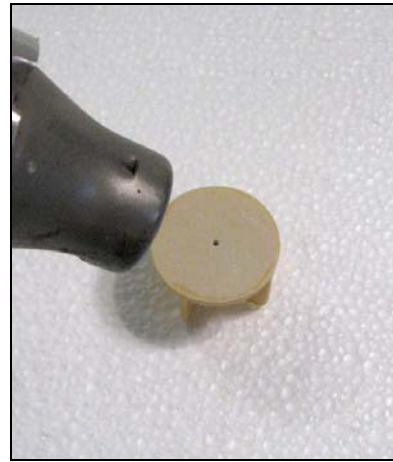
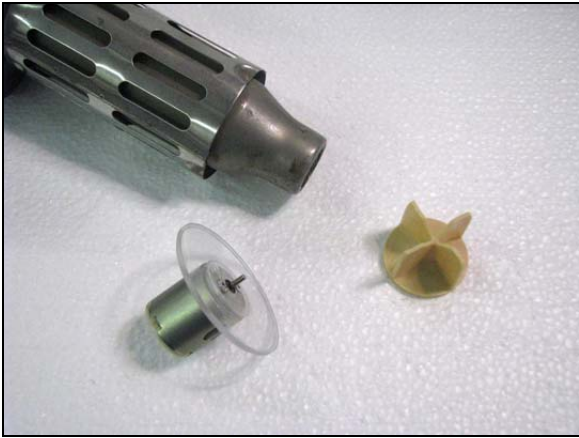
3. Remove fan from motor assembly:

Removal of the fan is accomplished by prying the fan off with opposing forces. Use two standard screwdrivers under opposing sides of the fan to lift the fan from the motor shaft. Applying force to one side only, will not work very well and may injure the base on which it is mounted.

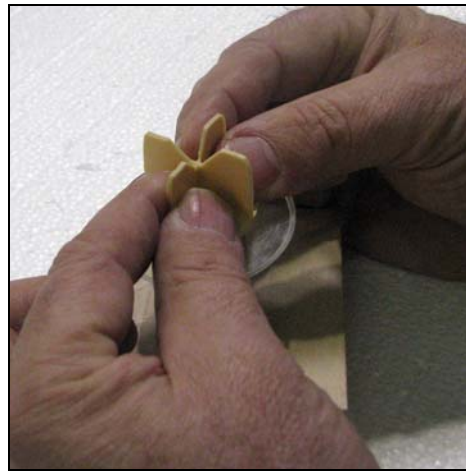
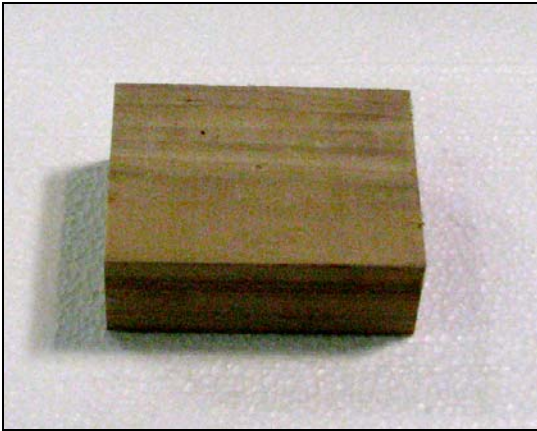


4. Install new fan:

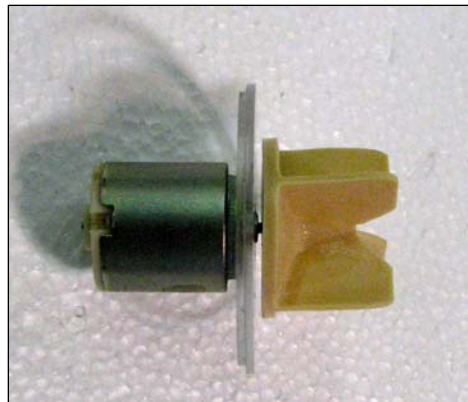
The new fan should be warmed slightly to make it more flexible. A hot air gun or even a hair dryer can accomplish this. Apply heat to back side of fan (flat surface). Be careful not to apply too much heat, as the part will be difficult to work with.



The motor shaft has been staked to form a “flat” that engages the fan material when the fan is pushed on. On the back end of the motor, you will see the end of the motor shaft. The end of the motor shaft should be placed on a firm surface when pushing on the new fan. Pushing the fan on without supporting the end of the motor shaft will end up with the motor being pushed apart. This disconnects the motor brushes and makes for more trouble in the rebuild. When pushing on the new fan, avoid pushing on the fan blades as they may break. If available, a drill press can be used to push on the new fan. If this method is used, a narrow, round blunt object pushes the fan on. Push down in the middle of the fan.



Be careful not to push the fan on too far as it will rub on the base. If this happens, the fan will need to be pried off, slightly.

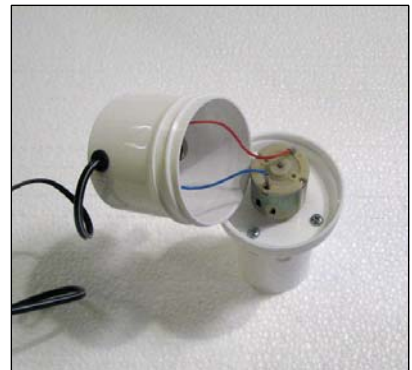


5. Re-assembly:

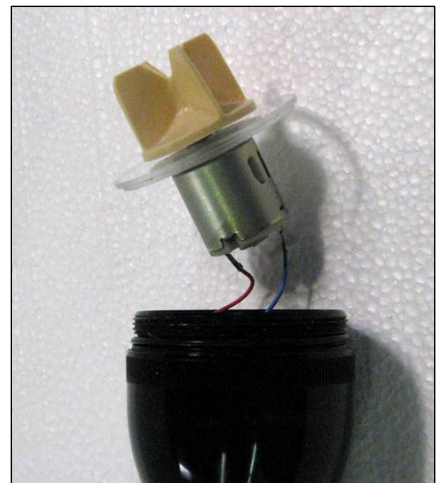
After the fan has been pushed on, spin the fan to make sure it spins freely. Insert wire terminals into motor. Make sure that the raised bump on the terminal faces the outside of the motor.



For a 2809A aspirator, reinstall the four screws that secure the tube holder. Verify that the fan spins freely after tube holder is in place. Screw the lid onto the bottom base or jar.



For 2809 C and D, stand flashlight in a vertical position and place acrylic base plate in the flashlight end bell. The retaining ring should already be installed on the tube holder. Place the bezel ring over the retaining ring and screw the assembly to the end bell. Verify that the fan spins freely. 2809 C, D- it is very important not to let the motor base plate rotate too much. The wires will twist together and draw to the center where they may cause an electrical short.



6. Trouble? :

Should you not be able to repair the fan, or if problems arise that can't be solved, aspirators can be returned to BioQuip for repair. Please contact BioQuip customer service at bqcustserv@bioquip.com.

